EOS Science Networks Performance Report

This is a summary of EOS QA SCF performance testing for the 3rd quarter of 2005 -- comparing the performance against the requirements from BAH, including Terra, TRMM, and QuikScat, Aqua, Aura, SAGE III, and ICESat requirements

Up to date graphical results can be found on the EOS network performance web site: http://ensight.eos.nasa.gov/active_net_measure.html. Or click on any of the individual site links below.

Highlights:

- Very stable performance.
- ALL ratings are now "Good" or "Excellent"! The average rating is 3.77, an all time high!

Notes:

- SIPS sites were moved from this report to the "EOS Production sites" performance report: NCAR, KNMI, RSS. GSFC → JPL. NSSTC → NSIDC.
- The April '05 requirements are used as the basis for the ratings.

Ratings:

Rating Categories:

Excellent: median of daily worst cases > 3 x requirement
Good: median of daily worst cases > requirement

Adequate: median of daily worst cases < requirement
and
median of daily medians > requirement

Low: median of daily medians < requirement.
Bad: median of daily medians < 1/3 of the requirement.

Ratings Changes:

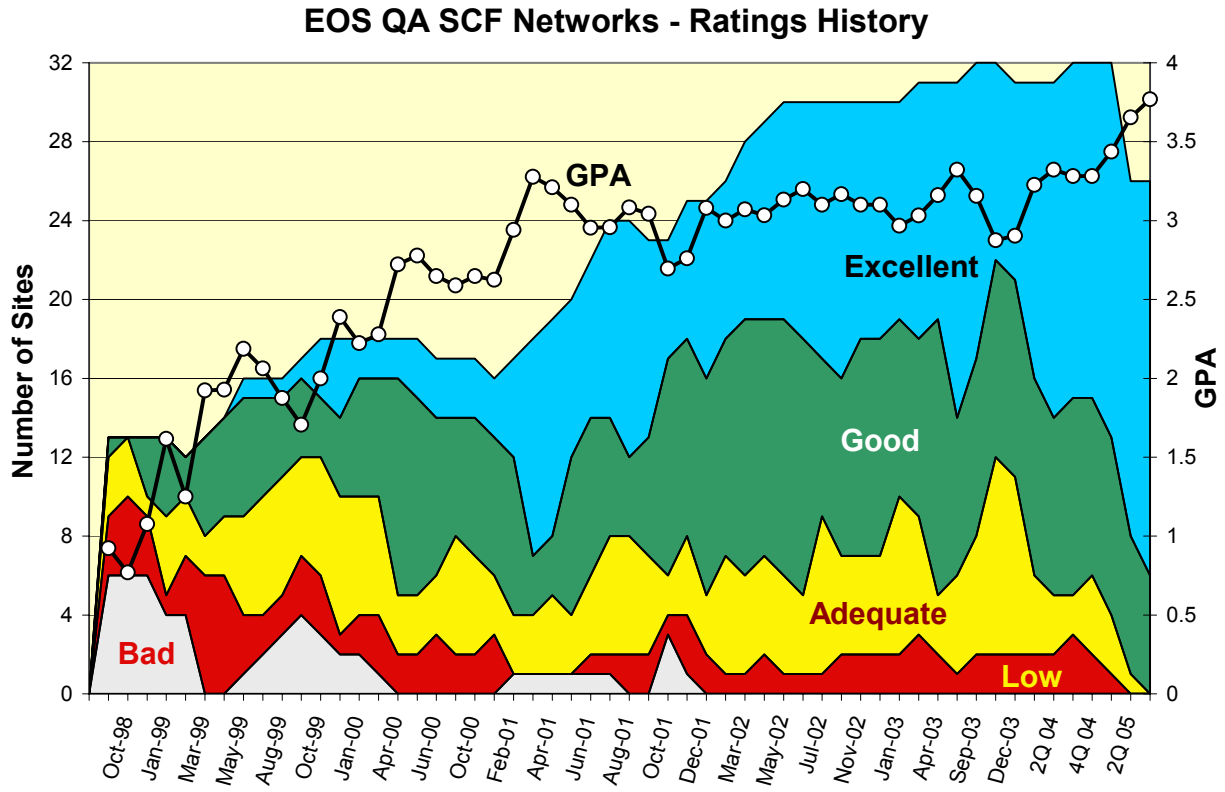
Upgrades: ↑

GSFC-ICESAT → UCSD: Good → **Excellent**
GSFC-ICESAT → Texas: Good → **Excellent**
LaTIS → COLO-State: Adequate → **Good**
LaTIS → ORST: Good → **Excellent**

Downgrades: ↓

LaRC → JRC (Italy): Excellent → **Good**

The chart below shows the number of sites in each classification since the testing started in 1998. Note that these ratings do NOT relate to absolute performance -- they are relative to the EOS requirements. The GPA is calculated based on Excellent: 4, Good: 3, Adequate: 2, Low: 1, Bad: 0



Note that there are fewer sites included in this chart since 1Q'05 due to moving the data for SIPS sites to the "EOS Production sites" performance report (NCAR, KNMI, RSS. GSFC → JPL, NSSTC → NSIDC).

EOS QA SCF Sites: Network Requirements vs. Measured Performance

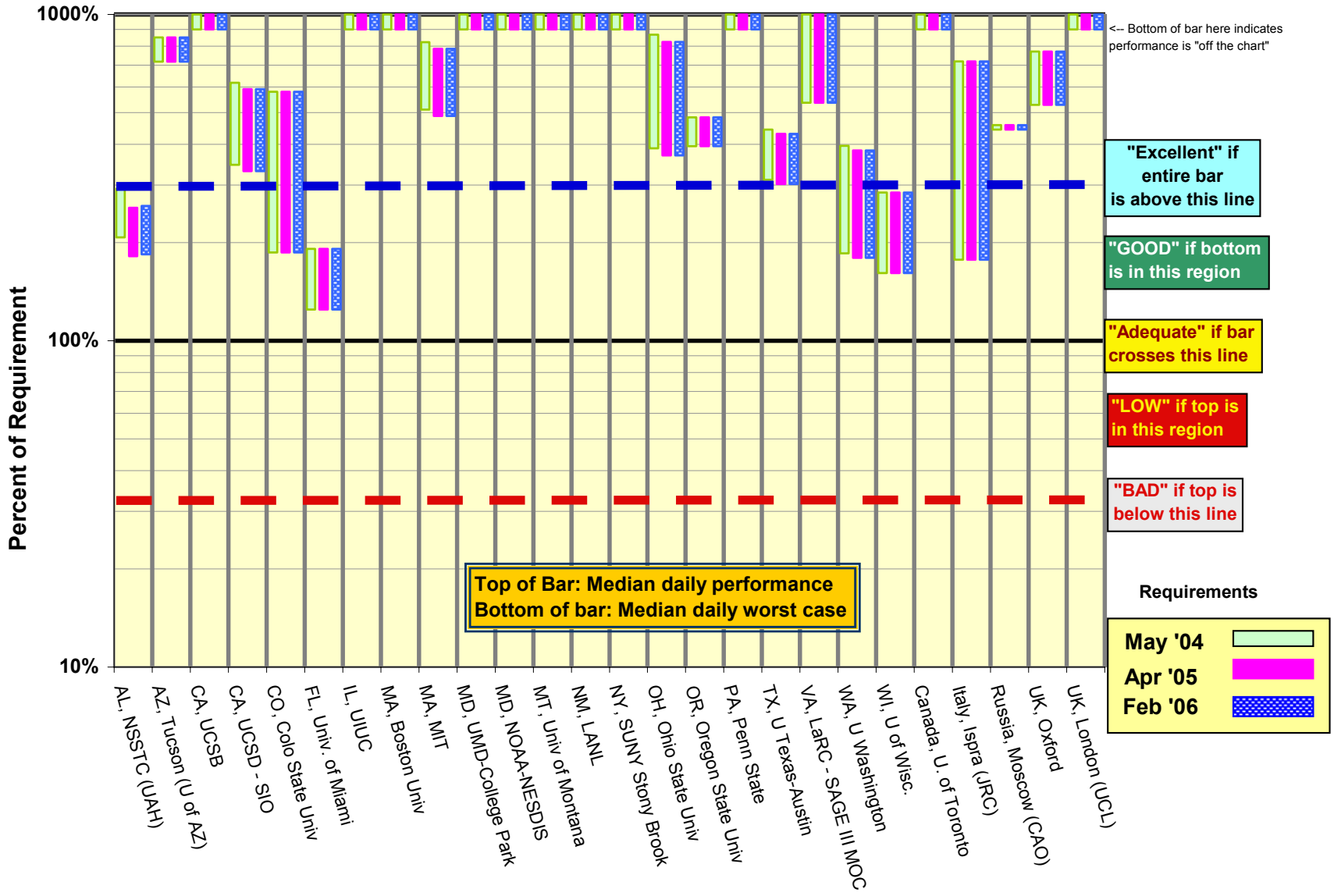
3 Q 2005		Requirements (kbps)			Testing						
Destination	Team (s)	Previous: May-04	Current: Apr-05	Future: Feb-06	Source Node	Media n kbps	Median Daily Worst	Rating re Current Requirements Apr-05	Prev	Rating re Feb-06	Route Tested
AL, NSSTC (UAH)	CERES, AMSR-E	6236	7127	7034	LaTIS	18214	12932	GOOD	G	GOOD	NISN + FDDI
AZ, Tucson (U of AZ)	MODIS	2811	2811	2811	EROS LPDAAC	23905	20145	Excellent	E	Excellent	Abilene via vBNS+ / DC
CA, UCSB	MODIS	3126	3126	3126	GDAAC	104895	70742	Excellent	E	Excellent	Abilene via MAX
CA, UCSD - SIO	ICESAT, CERES	6792	7107	7107	GSFC-ICESAT	41997	23529	Excellent	G	Excellent	Abilene via NISN / MAX
CO, Colo State Univ	CERES	2147	2147	2147	LaTIS	12447	4001	GOOD	A	GOOD	NISN -> Abilene via Chicago
FL, Univ. of Miami	MODIS, MISR	18823	18823	18823	GDAAC	36003	23438	GOOD	G	GOOD	Abilene via MAX
IL, UIUC	MISR	1133	1133	1133	LaRC DAAC	37190	23858	Excellent	E	Excellent	Abilene via NISN / MAX
MA, Boston Univ	MODIS, MISR	3035	3035	3035	EROS LPDAAC	83692	69812	Excellent	E	Excellent	Abilene via vBNS+ / DC
MA, MIT	ICESAT	6692	7007	7007	GSFC-ICESAT	54984	34186	Excellent	E	Excellent	Abilene via NISN / MAX
MD, UMD-College Park	MODIS	2039	2039	2039	GSFC-MAX	439529	389316	Excellent	E	Excellent	Direct Fiber
MD, NOAA-NESDIS	CERES, AMSR-E	1517	1517	1517	NSIDC	25961	22266	Excellent	E	Excellent	Abilene via FRGP, MAX
MT, Univ of Montana	MODIS	819	819	819	EROS LPDAAC	18033	10910	Excellent	E	Excellent	Abilene via vBNS+ / DC
NM, LANL	MISR	1033	1033	1033	LaRC DAAC	14850	9723	Excellent	E	Excellent	NISN -> ESNet via CA
NY, SUNY Stony Brook	CERES	573	573	573	LaTIS	39415	26867	Excellent	E	Excellent	Abilene via NISN / MAX
OH, Ohio State Univ	ICESAT	5992	6307	6307	GSFC-ICESAT	51943	23316	Excellent	E	Excellent	Abilene via NISN / MAX
OR, Oregon State Univ	CERES, MODIS	7570	7570	7570	LaTIS	36644	29865	Excellent	G	Excellent	Abilene via NISN / MAX
PA, Penn State	MISR	2642	2642	2642	LaRC DAAC	38721	31420	Excellent	E	Excellent	Abilene via NISN / MAX
TX, U Texas-Austin	ICESAT	10745	11060	11060	GSFC-ICESAT	47630	33447	Excellent	G	Excellent	Abilene via NISN / MAX
VA, LaRC - SAGE III MOC	SAGE III	200	200	200	GSFC-CSAFS	6807	1073	Excellent	E	Excellent	NISN SIP
WA, U Washington	ICESAT	11374	11746	11746	GSFC-ICESAT	45029	21084	GOOD	G	GOOD	Abilene via NISN / MAX
WI, U of Wisc.	MODIS, CERES, AIRS	16461	16461	16461	GDAAC	46842	26560	GOOD	G	GOOD	Abilene via MAX
Canada, U. of Toronto	MOPITT	612	612	612	LaRC DAAC	23274	15200	Excellent	E	Excellent	NISN-CA*net4
Italy, Ispra (JRC)	MISR	517	517	517	LaRC DAAC	3712	915	GOOD	E	GOOD	NISN-UUNET-Milan
Russia, Moscow (CAO)	SAGE III	26	26	26	CAO-->LaRC-N	119	115	Excellent	E	Excellent	NISN -> Moscow
UK, Oxford	HIRDLS	512	512	512	GSFC-MAX	3941	2706	Excellent	E	Excellent	Abilene->Geant (NY) -> JAnet
UK, London (UCL)	MISR, MODIS	1033	1033	1033	LaRC DAAC	14965	10195	Excellent	E	Excellent	NISN - MAX - Abilene->Geant (NY) -> JAnet

*Rating Criteria:	
Excellent	Median of Daily worst hours >= 3 *Requirement
GOOD	Median of Daily worst hours >= Requirement
Adequate	Median of Daily worst hours < Requirement <= Median of Daily Medians
LOW	Requirement > Median of Daily Medians
BAD	Requirement > 3 * Median of Daily Medians

Rating	Current Apr-05	Last Report	Future: Feb-06
Excellent	20	18	20
GOOD	6	7	6
Adequate	0	1	0
LOW	0	0	0
BAD	0	0	0
Total	26	26	26
GPA	3.77	3.65	3.77

EOS QA SCF Sites

Daily Median and Worst Performance as a percent of Requirements



Details on individual sites:

Each site listed below is the DESTINATION for all the results reported in that section. The first test listed is the one on which the rating is based -- it is from the source most relevant to the driving requirement. Other tests are also listed. The three values listed are derived from [nominally] 24 tests per day. For each day, a daily best, worst, and median is obtained. The values shown below are the medians of those values over the test period.

1) AL, NSSTC (UAH) (aka GHCC)

Rating: Continued **Good**

Teams: CERES, [AMSR]
Domain: nsstc.uah.edu
Web Page:http://ensight.eos.nasa.gov/Missions/terra/NSSTC.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC LaTIS	18.7	18.2	12.9	NISN SIP
GSFC	25.4	24.7	19.5	NISN SIP

Requirements:

Source Node	Date	Mbps	Rating
LaRC LaTIS	May '04	6.2	Good
LaRC LaTIS	Apr '05	7.1	Good

Comments: Thruput from both sites improved to the levels above in March '05 -- was about 16 mbps from LaTIS and 20 mbps from GSFC since October '04.

Note: Results of testing to NSIDC for AMSR flows has been moved to the EOS "Production Sites" report.

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2) AZ, Tucson (U of AZ):

Rating: Continued **Excellent**

Teams: MODIS
Domain: arizona.edu
Web Page: http://ensight.eos.nasa.gov/Missions/terra/ARIZONA.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
EROS LPDAAC	33.0	23.9	20.1	Abilene via vBNS+ / DC
GSFC	32.4	27.9	23.9	Abilene via MAX

Requirements:

Source Node	FY	Mbps	Rating
EROS LPDAAC	'03 - '06	2.8	Excellent

Comments: The ratings are based on the MODIS flow from EROS (There is no longer a requirement from LaRC, as the MISR team has all moved away from Arizona).

Performance was stable from all sources, keeping the rating "Excellent".

Note: Results to JPL and RSS have been moved to the EOS "Production Sites" report.

3) CA, UCSB:

Ratings: GSFC: Continued **Excellent**
EROS: Continued **Excellent**

Teams: MODIS
Domain: ucsb.edu
Web page: http://ensight.eos.nasa.gov/Missions/terra/UCSB.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-DAAC	114.6	104.9	70.7	Abilene via NISN / MAX
EROS-LPDAAC	94.3	92.4	71.6	Abilene via vBNS+ / DC

Requirements:

Source Node	FY	mbps	Rating
GSFC-DAAC	'04 - '06	3.1	**Excellent**
EROS-LPDAAC	'04 - '06	2.2	**Excellent**

Comments: The requirements are split between EROS and GSFC. Performance from both GSFC and EROS improved substantially in late April due to host upgrade at UCSB (Median performance was 19 mbps from GSFC and 18 mbps from EROS before that). The rating remains "Excellent" from both sites.

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4) CA, UCSD (SIO):

Ratings: ICESAT: ↑ Good → **Excellent**
LaTIS: Continued **Excellent**

Teams: CERES, ICESAT
Domain: ucsd.edu
Web Page: http://ensight.eos.nasa.gov/Missions/terra/UCSD.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-ICESAT	52.6	42.0	23.5	Abilene via NISN / MAX
LaTIS	39.5	37.4	31.4	Abilene via NISN / MAX

Requirements:

Source Node	FY	mbps	Rating
GSFC	'05 – '06	7.0	**Excellent**
LaTIS	'02 - '06	0.26	**Excellent**

Comments: The rating is based on testing from the ICESAT SCF at GSFC. The daily worst from ICESAT improved from 20 mbps last quarter, and is now slightly above 3 x the requirement, so the rating improves to "Excellent".

Performance from LaTIS improved in April (from 25 mbps) due to NISN routing to Abilene via MAX (previously via Chicago). Prior to that thruput was stable since April '03. The CERES requirements are much lower than ICESAT, so the LaTIS rating continues as "Excellent".

5) CO, Colo State Univ.:

Rating: ↑ Adequate → **Good**

Teams: CERES
Domain: colostate.edu
Web page: http://ensight.eos.nasa.gov/Missions/terra/COLO_ST.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaTIS	16.8	12.4	4.0	Abilene via NISN / Chicago
GSFC	16.8	14.9	7.4	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
LaTIS	'04 - '06	2.15	**Good**

Comments: The Colo State test host was replaced in mid August – performance improved from both LaTIS and GSFC at that time. The measurements above reflect only the period AFTER this improvement. The daily worst from LaTIS is now above the '05 requirement, improving the rating to "Good". Performance from GSFC would rate as "Excellent".

Note: Results to NCAR have been moved to the EOS "Production Sites" report.

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6) FL, Univ. of Miami:

Rating: GSFC: Continued **Good**
LaRC: Continued **Excellent**

Teams: MODIS, MISR
Domain: rsmas.miami.edu
Web page: http://ensight.eos.nasa.gov/Missions/terra/MIAMI.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-DAAC	42.2	36.0	23.4	Abilene via MAX
GSFC-MAX	44.0	38.1	32.1	Abilene via MAX
LaRC DAAC	27.0	22.0	16.9	Abilene via NISN / MAX

Requirements:

Source Node	FY	mbps	Rating
GSFC	'04 - '06	18.8	**Good**
LaRC DAAC	'04 - '06	1.1	**Excellent**

Comments: Thruput from all sites dropped dramatically on Aug 4 – Medians from GSFC were 133 mbps from GSFC and 38 mbps from LaRC. But the daily worst values remain above the requirement, so the rating remains "Good" from GSFC, and "Excellent" from LaRC.

7) IL, UIUC:

Rating: Continued **Excellent**

Domain: uiuc.edu
Teams: MISR
Web Page: http://ensight.eos.nasa.gov/Missions/terra/UIUC.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC DAAC	40.3	37.2	23.9	Abilene via NISN / Chicago
GSFC-MAX	199.8	199.1	136.3	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
LaRC DAAC	'04 - '06	1.13	**Excellent**

Comments: Performance was stable this period, well above the modest requirement, rating "Excellent".

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8) MA, Boston Univ:

Ratings: EROS: Continued **Excellent**
LaRC: Continued **Excellent**

Domain: bu.edu
Teams: MODIS, MISR
Web Page: http://ensight.eos.nasa.gov/Missions/terra/BU.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
EROS DAAC	89.5	83.7	69.8	Abilene via vBNS+ / DC
GSFC	93.9	93.8	86.7	Abilene via MAX
LaRC DAAC	38.8	35.4	29.2	Abilene via NISN / MAX

Requirements:

Source Node	FY	mbps	Rating
EROS DAAC	'04 - '06	3.0	**Excellent**
LaRC DAAC	'04 - '06	1.2	**Excellent**

Comments: Performance from all sites was very stable this period. The rating from both sites remains Excellent".

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9) MA, MIT:

Rating: Continued **Excellent**

Teams: ICESAT
Domain: mit.edu
Web Page: http://ensight.eos.nasa.gov/Missions/icesat/MIT.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-ICESAT	69.8	55.0	34.2	Abilene via NISN / MAX
GSFC-MAX	91.1	86.9	71.4	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
GSFC	'04, '05 – '06	6.7, 7.0	**Excellent**

Comments: Performance from GSFC ICESAT to MIT is still subject to congestion inside GSFC, about as much as previously. The daily worst remains above 3 x the requirement, the rating remains "Excellent". From GSFC-MAX there is less congestion apparent.

10) MD, NOAA-NESDIS (Camp Springs)

Rating: Continued **Excellent**

Teams: CERES, AMSR-E Domain: nesdis.noaa.gov

Web Pages: http://ensight.eos.nasa.gov/Missions/terra/NOAA_Camp_Springs.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
NSIDC	26.3	26.0	22.3	FRGP / Abilene / MAX
LaTIS	26.2	22.1	8.6	NISN / MAX
GSFC-MODIS	32.5	31.5	29.5	Peering at MAX

Requirements (QA only):

Source Node	FY	mbps	Rating
NSIDC	'02 – '06	1.52	**Excellent**
LaTIS	'02 – '06	0.21	**Excellent**

Comments: Performance from LaTIS improved in April '05 with the NISN – Abilene routing via MAX. The performance from other sources has been stable since it improved around mid August '04, due to upgrades at NOAA. The rating remains "Excellent" from both NSIDC and LaTIS.

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11) MD, Univ. of Maryland:

Rating: Continued **Excellent**

Teams: MODIS Domain: umd.edu

Web Pages: http://ensight.eos.nasa.gov/Missions/terra/UMD_SCF.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-MAX	446.4	439.5	389.3	Direct Fiber OC-12 / MAX / SCF
EROS LPDAAC	88.7	80.6	55.0	VBNS+ / Abilene / MAX / SCF
NSIDC	45.7	45.2	34.2	Abilene / MAX / SCF

Requirements (QA only):

Source Node	FY	mbps	Rating
GSFC DAAC	'02 – '06	2.0	**Excellent**

Comments: The UMD test node was replacemed in mid May – performance improved to the above levels at that time, and has been very stable. Due to the modest requirement, these performance levels rate as "Excellent"

12) MT, Univ of Montana:

Rating: Continued **Excellent**

Teams: MODIS
Domain: ntsg.umt.edu
Web Page: http://ensight.eos.nasa.gov/Missions/terra/MONT.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
EROS LPDAAC	18.8	18.0	10.9	VBNS+ / DC / Abilene
GSFC	39.7	33.8	23.0	MAX / Abilene
NSIDC	41.1	36.8	23.1	CU / FRG / Abilene

Requirements:

Source Node	FY	mbps	Rating
EROS LPDAAC	'04 - '06	0.82	**Excellent**

Comments:. Stable performance from all sources. However, there is a noticeable diurnal cycle from all sources. With the low requirements, however, the rating continues as "Excellent".

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13) NM, LANL:

Rating: Continued **Excellent**

Teams: MISR
Domain: lanl.gov
Web Page: http://ensight.eos.nasa.gov/Missions/terra/LANL.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC DAAC	16.1	14.8	9.7	NISN SIP / MAE-W (Ames) / ESnet
GSFC	17.3	16.9	16.0	MAX / ESnet

Requirements:

Source Node	FY	mbps	Rating
LaRC DAAC	'03-'06	1.03	**Excellent**

Comments: Performance from both LDAAC and GDAAC was stable since the ESnet upgrade in early July '04. The rating remains "Excellent"

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14) NY, SUNY-SB:

Rating: Continued **Excellent**

Teams: CERES, MODIS
Domain: sunysb.edu
Web Page: http://ensight.eos.nasa.gov/Missions/terra/SUNYSB.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaTIS	41.8	39.4	26.9	NISN / MAX / Abilene / NYSERnet
GSFC	73.1	65.1	49.3	MAX / Abilene / NYSERnet

Requirements:

Source Node	FY	mbps	Rating
LaTIS	'02-'06	0.57	**Excellent**

Comments: Performance from both sites increased to the above values in April '05 after the routing from LaRC was via MAX, the SUNY test host was replaced, and test parameters adjusted. With the low requirement, the rating remains "Excellent".

15) OH, Ohio State Univ:

Rating: Continued **Excellent**

Teams: ICESAT
Domain: ohio-state.edu
Web Page: http://ensight.eos.nasa.gov/Missions/icesat/OHIO_STATE.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-ICESAT	67.5	51.9	23.3	Abilene via NISN / MAX
GSFC-MAX	60.3	53.9	42.4	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
GSFC	'04, '05-'06	6.0, 6.3	**Excellent**

Comments: The congestion at ICESAT is still somewhat apparent. The daily worst from ICESAT remains more than 3 x the requirement, so the rating remains "Excellent". Without this congestion, the daily worst from GSFC-MAX is higher – although the daily median and maximum are similar..

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16) OR, Oregon State Univ:

Ratings: LaTIS: ↑ Good → **Excellent**
GSFC: Continued **Excellent**

Domain: oce.orst.edu
Teams: CERES, MODIS
Web Page:http://ensight.eos.nasa.gov/Missions/terra/ORST.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaTIS	39.2	36.6	29.9	Abilene via NISN / Chicago
JPL	75.4	70.0	20.7	Abilene via CalRen
GSFC	53.7	46.9	14.6	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
LaTIS	'04 - '06	7.5	**Excellent**
GDAAC	'02 - '06	0.25	**Excellent**

Comments: Performance from LaTIS had reduced noisiness, increasing the rating to "Excellent". Performance from other sources experienced continued noisiness and was stable.

17) PA: Penn State Univ:

Rating: Continued **Excellent**

Teams:MISR
Domain: psu.edu
Web Page: http://ensight.eos.nasa.gov/Missions/terra/PENN_STATE.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC DAAC	40.9	38.7	31.4	Abilene via NISN / MAX
GSFC	159.7	157.3	135.6	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
LaRC DAAC	'03-'06	2.6	**Excellent**

Comments: Peak performance from LDAAC has been stable since it improved in April with the NISN – Abilene routing via MAX; the rating remains "Excellent". Performance from GSFC improved to the above levels in September '04 (Median was 70 mbps previously)

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18) TX: Univ. of Texas - Austin:

Rating: ↑ Good → **Excellent**

Teams: ICESAT
Domain: utexas.edu
Web Page: http://ensight.eos.nasa.gov/Missions/icesat/TEXAS.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-ICESAT	65.9	47.6	33.4	Abilene via NISN / MAX
GSFC-MAX	64.1	55.4	43.3	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
GSFC	'03, 05-'06	10.7, 11.1	**Good**

Comments: Performance from GSFC-MAX and ICESAT-SCF at GSFC via Abilene improved in August with retuning of the test parameters; prior to that thruput had been very stable since July '03 at a median of about 40 mbps. Congestion is still observed from ICESAT, but the daily worst is now slightly above 3 x the requirement, so the rating improves to "Excellent".

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19) VA, LaRC: SAGE III MOC:

Rating: Continued **Excellent**

Teams: SAGE III
Domain: larc.nasa.gov
Web Page: http://ensight.eos.nasa.gov/Missions/sage/SAGE_MOC.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-SAFS	8.2	6.8	1.1	NISN PIP

Requirements:

Source Node	FY	mbps	Rating
GSFC SAFS	'02 – '06	0.20	**Excellent**

Comments: Noisy but long term stable thruput since upgrade of LaRC MOC machine in Feb '03. All tests from CSAFS exhibit similar noisiness. Rating continues "Excellent".

20) WA, Univ Washington:

Rating: Continued **Good**

Teams: ICESAT
Domain: washington.edu
Web Page: http://ensight.eos.nasa.gov/Missions/icesat/UW.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC-ICESAT	60.4	45.0	21.1	Abilene via NISN/MAX
GSFC-MAX	59.7	53.6	40.4	Abilene via MAX

Requirements:

Source Node	FY	mbps	Rating
GSFC	'04, '05-'06	11.3, 11.7	**Good**

Comments: Like other ICESAT sites, congestion from the ICESAT test node was still present. All measurements above were stable. The median daily worst from ICESAT remains above the requirement; the rating continues "Good" – but would be "Excellent" from GSFC-MAX.

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21) WI, Univ. of Wisconsin:

Ratings: GSFC: Continued **Good**
LARC: Continued **Good**

Teams: MODIS, CERES, AIRS
Domain: ssec.wisc.edu
Web Page: http://ensight.eos.nasa.gov/Missions/terra/WISC.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
G-DAAC	68.3	46.8	26.6	MAX / Abilene / Chi / MREN
LaTIS	26.3	23.0	12.7	NISN / Chicago / MREN
GSFC-MAX	73.6	55.0	32.7	MAX / Abilene / Chi / MREN

Requirements:

Source Node	FY	mbps	Rating
GSFC	'04 - '06	16.5	**Good**
LaRC Combined	'03, '04, '05-'06	6.8, 7.5, 7.9	**Good**

Comments: Performance from GSFC DAAC was a bit less noisy but long term stable; the rating from GSFC remains "Good". Performance from LaTIS was stable this period; it had improved in April with the NISN – Abilene routing via MAX. The rating from LaTIS remains "Good".

22) Canada, Univ of Toronto:

Rating: Continued **Excellent**

Team: MOPITT
Domain: physics.utoronto.ca
Web Page: http://ensight.eos.nasa.gov/Missions/terra/TORONTO.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC DAAC → Test Node	25.8	23.3	15.2	NISN / Chicago / CA*net4
GSFC→ Test Node	70.1	62.5	38.0	MAX / Abilene / Chicago / CA*net4

Requirements:

Source Node	FY	kbps	Rating
LaRC DAAC	'02 - '06	100	**Excellent**
GSFC EOC	'02 - '06	512	**Excellent**

Comments: Flows to the Toronto IST node were switched from the dedicated NISN T1 to CA*net4 in late October '04. Performance from both LDAAC (Source of QA data) and GSFC (Source for IST) to the IST at Toronto improved (was about 1.4 mbps via the private T1). Testing to the actual IST has been discontinued based on request from Toronto. The rating, now based on testing to the Toronto test node, remains "Excellent".

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23) Italy, EC - JRC:

Rating: ↓ Excellent → **Good**

Teams: MISR
Domain: ceo.sai.jrc.it
Web Page: http://ensight.eos.nasa.gov/Missions/terra/JRC.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC DAAC	7.0	3.7	0.9	NISN / UUnet / Milan
GSFC-NISN	7.7	4.1	1.3	NISN / UUnet / Milan

Requirements:

Source Node	FY	mbps	Rating
LaRC DAAC	'02 – '06	0.52	**Good**

Comments: Performance improved from both sources in May, due to an apparent UUNet upgrade, but was very noisy this period, dropping the daily worst below 3 x the requirement. The rating drops to "Good".

Note: Results to KNMI have been moved to the EOS "Production Sites" report.

24) Russia, CAO (Moscow):

Rating: Continued **Excellent**

Teams: SAGE III
Domain: mipt.ru
Web Pages: http://ensight.eos.nasa.gov/Missions/sage/CAO.shtml
http://ensight.eos.nasa.gov/Missions/sage/LARC_SAGE.shtml

Test Results:

Source → Dest	Medians of daily tests (kbps)			Route
	Best	Median	Worst	
CAO → LaRC	119	119	115	MIPT / TCnet / NISN SIP
CAO → LaRC	555	458	323	Commodity Internet
LaRC → CAO	149	148	128	NISN SIP / TCnet / MIPT
LaRC → CAO	1558	1503	720	Commodity Internet

Requirements:

Source → Dest	FY	kbps	Rating
CAO → LaRC	'02 – '06	26	**Excellent**
LaRC → CAO	'02 – '06	26	**Excellent**

Comments: Performance testing has been running since November '02, with dual routes. Performance on the NISN dedicated circuit to Moscow, then TCnet (NASA Russian ISP) tunnel to CAO ISP (MIPT) is extremely steady in both directions, with a rating (based on the modest requirement) of "Excellent".

The dual route configuration also allows testing via the commodity internet route. Performance via the internet route is much better, but is also more variable, and also would rate "Excellent".

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25) UK, London: (UCL SCF)

Rating: Continued **Excellent**

Teams: MODIS, MISR
Domain: ucl.ac.uk
Web Page: http://ensight.eos.nasa.gov/Missions/terra/UCLSCF.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
LaRC DAAC	18.0	15.0	10.2	NISN / MAX / Abilene / NY / GEANT / Janet **??**
GSFC MAX	81.9	81.1	68.8	MAX / Abilene / NY / GEANT / JAnet

Requirements

Source Node	FY	mbps	Rating
LaRC DAAC	'02 – '06	1.03	**Excellent**

Comments: The route from LDAAC apparently changed to go via NISN to MAX and Abilene in April, based on the general LaRC routing change at that time, and the corresponding performance improvement (Traceroutes are blocked, however). If so, it was a good opportunity to benefit from the recent Abilene policy change, allowing our NISN data to transit Abilene to international destinations.

Thruput had been 3 mbps median, 1 mbps daily worst via NISN / Level3 peering in San Jose since approx January '04. Performance is less noisy on this route, and the daily worst improved this month to be well above 3 x the requirement. The rating remains "Excellent".

Performance from GSFC improved in early August due to test parameter retuning (median was 45 mbps last period), and much higher than from LaRC.

26) UK, Oxford:

Rating: Continued **Excellent**

Teams: HIRDLS
Domain: ox.ac.uk
Web Page: http://ensight.eos.nasa.gov/Missions/aura/OXFORD.shtml

Test Results:

Source Node	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC	4.09	3.94	2.71	MAX / Abilene / NY / GEANT /JAnet

Requirements: (IST Only)

Source Node	FY	kbps	Rating
GSFC	'03 – '06	512	**Excellent**

Comments: Very steady performance continues since May '03, rating "Excellent" compared to the IST requirement.

Test Results to other EOS HIRDLS UK Sites (Requirements TBD):

Web Page: http://ensight.eos.nasa.gov/Missions/aura/UK_RAL.shtml

Source → Dest	Medians of daily tests (mbps)			Route
	Best	Median	Worst	
GSFC → RAL	32.1	24.4	12.4	MAX / Abilene / NY / GEANT /JAnet

Comments: Thruput to RAL remains noisy, but quite good, and about the same as the last report. .